



DSP5500HC

DSP Centre-channel Loudspeaker

Sales information
1st December 2001

- **Three-way active loudspeaker with DSP crossover**
- **Self-contained audio system, each comprising four custom drivers, four amplifiers, three digital converters, digital crossovers and advanced sound-shaping DSP computers**
- **Remote controlled and requiring no unsightly speaker cables**
- **Listener control over features including bass, treble tilt, listening axis, volume, time-compensated balance and absolute phase**
- **Magnetic shielding with heavy steel prevents disturbing TVs**
- **Maximum output level up to 111dB spl**

Meridian DSP5500HC

The DSP5500HC is constructed with steel panels sandwiched between the rigid inner cabinet and the veneered outer panels on four sides. The two 200mm bass drivers are housed in separate internal enclosures. A third internal enclosure houses the tweeter and midrange. As a result the acoustic cabinet is extremely rigid, giving the benefits of extension, clarity and dynamic range unheard of in conventional centre channels.

Meridian also included innovative DSP technology to compensate for boundary and corner use. This is a centre speaker that can be installed in almost any environment with confidence.

The DSP5500HC has been designed to work coherently with the Meridian DSP5500, DSP6000 and DSP8000 loudspeakers.

Technical Specification

- Performance:** Frequency response in-room within 3dB from 35Hz to over 20kHz.
Maximum output >111dB spl @ 1m on music material
Noise less than 15dB spl.
Overall distortion typically <0.02% at any frequency or level.
- Inputs:** Two digital inputs to SPDIF standard; 32kHz–96kHz sampling rates at up to 24 bit; MHR support. (A future software update will enable support for 192kHz.)
- Construction:** 3-way acoustic reflex system.
2 x 200mm long-throw bass drivers.
1 x 160mm polypropylene mid driver in separate enclosure.
1 x 25mm aluminium-dome tweeter, silver wire, short horn-loaded with protective grille.
Cabinet constructed from high-density MDF. Integral magnetic shielding and user-changeable real wood veneer acoustic damping side panels.
FIFO memory buffer input for the lowest possible jitter from almost any source.
Four precision 128x oversampling converters for bass, mid and tweeter signals.
Analogue gain and filtering using proprietary Meridian Class-A discrete amplification.
Digital and conversion electronics constructed using advanced surface-mount techniques and partitioned 6-layer printed-circuit boards.
Four 75W power amplifiers, one for each of the drivers.

Meridian Audio Limited

Stonehill, Stukeley Meadows
Huntingdon
Cambridgeshire PE29 6EX
T +44 (0) 1480 445678
F +44 (0) 1480 445686

Meridian America Inc.

Suite 122, Building 2400
3800 Camp Creek Parkway
Atlanta GA 30331
T (404) 344 7111
F (404) 346 7111

BOOTHROYD STUART
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www.meridian-audio.com

Power amplifiers use a unique feedback topology and precision local error-correction systems to achieve a performance equivalent to the conversion system.

Dimensions: 1100mm (43.3in) W, 285 (11.2) H, 415 (16.3) D
Weight 81kg (179lb)

DSP: 100MHz Motorola digital signal processor.
Digital crossover at 200Hz and 2.6kHz.
Response correction for the whole system.
User tone, volume and phase controls.

Controls: Rear-panel controls for power On/Off. MSR and RS232 port provide control over bass, treble tilt, listening axis, volume, time-compensated balance and absolute phase.

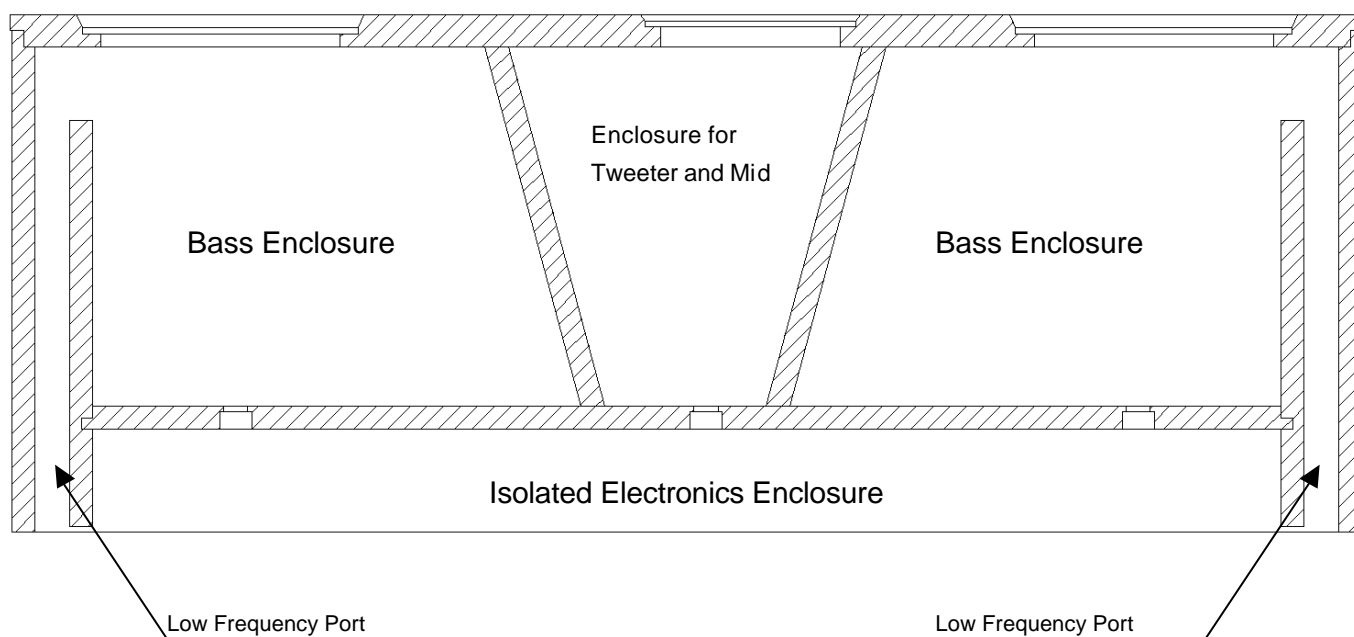
Front display: Eight-character display with system lights, can be blank.

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Diagram of Cabinet Construction



Added to this inner cabinet are four steel sheets and four veneered panels for increased rigidity.

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